



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 4
ATLANTA FEDERAL CENTER
61 FORSYTH STREET
ATLANTA, GEORGIA 30303-8960

OCT 17 2013

Mr. Michael Clements
AEI Consultants, Inc.
6065 Roswell Road, Suite 940
Atlanta, Georgia 30328

RE: Freedom of Information Request No. EPA-R4-2013-009413

Dear Mr. Clements:

This letter is in response to your Freedom of Information Act (FOIA) request dated August 26, 2013, pertaining to environmental records for soil, groundwater and CERCLIS-NFRAP investigations of the Crown Central Petroleum Corporation located in Doraville, Georgia.

Please find enclosed a copy of report #GAD079362661 for Crown Central Petroleum Corp., which is responsive to your request. Fees are waived as de minimis.

If you have any questions regarding this response, please contact Urshula Swann, FOIA Specialist, at (404) 562-8179 or swann.urshula@epa.gov.

Sincerely,

A handwritten signature in black ink that reads "LouAnn Gross".

LouAnn Gross, Chief
Information Access Section

Enclosure

U. S. ENVIRONMENTAL PROTECTION AGENCY
OFFICE OF EMERGENCY AND REMEDIAL RESPONSE
DATA BASE UPDATED 85/01/93
T.1 - ERRIS TURNAROUND DOCUMENT

SITE DATA

EPA ID NO.: GAD079362661 SHEET 01

(ACTION : * * - FOR DATA ENTRY USE ONLY)

SF ID: *	_____*	SITE NAME: CROWN CENTRAL PETROLEUM CORP	SOURCE: N	SOURCE COUNTS:

	_____	STREET: 2765 WOODWIN RD	CONG. DIST: 04	NOTIS: 1
NATL PRIORITY: N		CITY: DORAVILLE	ST: GA	ZIP: 30340-_____
HRS: *_____*		CNTY NAME: DEKALB	CNTY CODE: 089	HWDMS: 0
HRS DATE (YY/MM): *____/____*		LATITUDE: 33/54/00.0	LONGITUDE: 084/16/48.0	COMPOSITE: 0
RESPONSE TERMINATION (CHECK ONE IF APPLICABLE):	PENDING *	* NO FURTHER ACTION	X	OTHER: 0

HRS DATE (YY/MM): * / * * LATITUDE: 33/54/00.0 LONGITUDE: 084/16/48.0

RESPONSE TERMINATION (CHECK ONE IF APPLICABLE):

ENF. DISP. (CHECK ANY THAT APPLY): NO VIABLE RESP. PARTY * * * VOL. RESP. * * * ENF. RESP. * * * COST RECOV. * * *

RSPO NAME: * RSPO PHONE: * * - - * FED. FAC. (Y/N): N NON-SITE: * *

SMSA: 0520 USGS HYDRO. UNIT: 03130001 REG. FLD1: * REG. FLD2: *

★ ★
SITE DESCRIPTION: ★

[illegible]

EVENTS *****

(ACTION - FOR DATA ENTRY USE ONLY)	EVENT TYPE	DATE (YY/MM) STARTED	DATE (YY/MM) COMPLETED	-- -- -- CONDUCTED BY -- -- --			COUNTS
				EPA	STATE	RESP/PARTY	
RESPONSE EVENTS	(X) SITE DISCOVERY (SD)		81/06				
	(X) PRELIMINARY ASSESSMENT (PA)	82/09		X	*	*	
	SITE INVESTIGATION (SI)	*_/__/*	*_/__/*	*	*	*	
	REMEDIAL ACTION (RD)	*_/__/*	*_/__/*	*	*	*	*_*
	REMOVAL ACTION (RV)	*_/__/*	*_/__/*	*	*	*	*_*
ENFORCE. EVENTS	ENFORCEMENT INVESTIGATION (EI)	*_/__/*	*_/__/*	*	*	*	*_*
	ADMINISTRATIVE ORDER (AO)	*_/__/*	*_/__/*	*	*	*	*_*
	JUDICIAL ACTION (JA)	*_/__/*	*_/__/*	*	*	*	*_*

U. S. ENVIRONMENTAL PROTECTION AGENCY
OFFICE OF EMERGENCY AND REMEDIAL RESPONSE
DATA BASE UPDATED 85/01/03
T.1 - ERRIS TURNAROUND DOCUMENT

EPA ID NO.: GAD079362661 SHEET 02

SITE NAME: CROWN CENTRAL PETROLEUM CORP

ALIAS AND ALIAS LOCATION DATA

ALIAS (ACTION * - FOR DATA ENTRY USE ONLY)

SEQ. NO.: * * * ALIAS NAME: * * * SOURCE: * *

ALIAS LOCATION (ACTION * - FOR DATA ENTRY USE ONLY)

CONTIGUOUS PORTION OF SITE: * *

STREET: * * * CONG. DIST.: * *

CITY: * * * ST: * * * ZIP: * * *

CNTY NAME: * * * CNTY CODE: * *

LAT: * _ / _ / _ * LONG.: * _ / _ / _ * SHSA: * _ * USGS HYDRO. UNIT: * _ *

ALIAS (ACTION * - FOR DATA ENTRY USE ONLY)

SEQ. NO.: * * * ALIAS NAME: * * * SOURCE: * *

ALIAS LOCATION (ACTION * - FOR DATA ENTRY USE ONLY)

CONTIGUOUS PORTION OF SITE: * *

STREET: * * * CONG. DIST.: * *

CITY: * * * ST: * * * ZIP: * * *

CNTY NAME: * * * CNTY CODE: * *

LAT: * _ / _ / _ * LONG.: * _ / _ / _ * SHSA: * _ * USGS HYDRO. UNIT: * _ *

U. S. ENVIRONMENTAL PROTECTION AGENCY
OFFICE OF EMERGENCY AND REMEDIAL RESPONSE
DATA BASE UPDATED 85/01/03
T.1 - ERRIS TURNAROUND DOCUMENT

PAGE: 427
RUN DATE: 85/01/03
RUN TIME: 23:43:00

EPA ID NO.: GAD079362661 SHEET 03

SITE NAME: CROWN CENTRAL PETROLEUM CORP

SITE COMMENTS

(ACTION - FOR DATA ENTRY USE ONLY)		COMMENT NUMBER
1	2	3
4	5	6
7	8	9
10	11	12
13	14	15
16	17	18
19	20	21
22	23	24
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34	35	36
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58	59	60
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103	104	105
106	107	108
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352	353	354
355	356	357
358	359	360
361	362	363
364	365	366

COMMENT

GAS000001031-DISPOSAL OCCURRED AT PETROLEUM PRUDUCT TERMINAL SITE.
LEADED TANK BOTTOMS GENERATED BY THE CLEANING OF GASOLINE STORAGE
TANKS WERE DISPOSED OF ON SITE BY THE BURIAL METHOD IN ACCORDANCE WITH
STANDARD INDUSTRY PRACTICE. SEE ATTACHMENTS A AND B. 1962 TO 63.
CONTACT: PHIL B. ONDERDONK/ MARKETING ATTY. 301-539-7400.

[illegible]

U. S. ENVIRONMENTAL PROTECTION AGENCY
OFFICE OF EMERGENCY AND REMEDIAL RESPONSE
DATA BASE UPDATED 85/01/03
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PAGE: 428
RUN DATE: 85/01/03
RUN TIME: 23:43:00

EPA ID NO.: GAD079362661 SHEET 04

SITE NAME: CROWN CENTRAL PETROLEUM CORP

REGIONAL ENTRIES

[illegible]



POTENTIAL HAZARDOUS WASTE SITE
IDENTIFICATION AND PRELIMINARY ASSESSMENT

REGION SITE NUMBER (to be assigned by HQ)

NOTE: This form is completed for each potential hazardous waste site to help set priorities for site inspection. The information submitted on this form is based on available records and may be updated on subsequent forms as a result of additional inquiries and on-site inspections.

GENERAL INSTRUCTIONS: Complete Sections I and III through X as completely as possible before Section II (Preliminary Assessment). File this form in the Regional Hazardous Waste Log File and submit a copy to: U.S. Environmental Protection Agency; Site Tracking System; Hazardous Waste Enforcement Task Force (EN-335); 401 M St., SW; Washington, DC 20460.

I. SITE IDENTIFICATION

A. SITE NAME CROWN CENTRAL PETROLEUM CORP		B. STREET (or other identifier) 2765 WOODWIN RD	
C. CITY DODZAVILLE	D. STATE GA	E. ZIP CODE 30340	F. COUNTY NAME DEKALB
G. OWNER/OPERATOR (if known) 1. NAME ONDERDONK, PHIL B. ATTY		2. TELEPHONE NUMBER 301 539 7400	
H. TYPE OF OWNERSHIP <input type="checkbox"/> 1. FEDERAL <input type="checkbox"/> 2. STATE <input type="checkbox"/> 3. COUNTY <input type="checkbox"/> 4. MUNICIPAL <input checked="" type="checkbox"/> 5. PRIVATE <input type="checkbox"/> 6. UNKNOWN			

I. SITE DESCRIPTION BURIAL PIT 1962-63 FOR LEADED TANK BOTTOMS	
J. HOW IDENTIFIED (i.e., citizen's complaints, OSHA citations, etc.) 103 C NOTIFICATION	K. DATE IDENTIFIED (mo., day, & yr.) 6-8-81
L. PRINCIPAL STATE CONTACT 1. NAME MOSES N. McCALL	
2. TELEPHONE NUMBER 404 656-2833	

II. PRELIMINARY ASSESSMENT (complete this section last)

A. APPARENT SERIOUSNESS OF PROBLEM <input type="checkbox"/> 1. HIGH <input type="checkbox"/> 2. MEDIUM <input type="checkbox"/> 3. LOW <input checked="" type="checkbox"/> 4. NONE <input type="checkbox"/> 5. UNKNOWN	
B. RECOMMENDATION <input checked="" type="checkbox"/> 1. NO ACTION NEEDED (no hazard) <input type="checkbox"/> 2. IMMEDIATE SITE INSPECTION NEEDED a. TENTATIVELY SCHEDULED FOR: b. WILL BE PERFORMED BY: <input type="checkbox"/> 3. SITE INSPECTION NEEDED a. TENTATIVELY SCHEDULED FOR: b. WILL BE PERFORMED BY: <input type="checkbox"/> 4. SITE INSPECTION NEEDED (low priority)	

C. PREPARER INFORMATION 1. NAME JIM USSERY	2. TELEPHONE NUMBER 404-656-2833	3. DATE (mo., day, & yr.) 9-13-82
--	-------------------------------------	--------------------------------------

III. SITE INFORMATION

A. SITE STATUS <input type="checkbox"/> 1. ACTIVE (These industrial or municipal sites which are being used for waste treatment, storage, or disposal on a continuing basis, even if infrequently.) <input checked="" type="checkbox"/> 2. INACTIVE (These sites which no longer receive wastes.) <input type="checkbox"/> 3. OTHER (specify):	
B. IS GENERATOR ON SITE? <input checked="" type="checkbox"/> 1. NO <input type="checkbox"/> 2. YES (specify generator's four-digit SIC Code):	
C. AREA OF SITE (in acres) UNKNOWN	D. IF APPARENT SERIOUSNESS OF SITE IS HIGH, SPECIFY COORDINATES 1. LATITUDE (deg.-min.-sec.) 2. LONGITUDE (deg.-min.-sec.)
E. ARE THERE BUILDINGS ON THE SITE? <input checked="" type="checkbox"/> 1. NO <input type="checkbox"/> 2. YES (specify):	

Continued From Front

IV. CHARACTERIZATION OF SITE ACTIVITY

Indicate the major site activity(ies) and details relating to each activity by marking 'X' in the appropriate boxes.

X' A. TRANSPORTER	X' B. STORER	X' C. TREATER	X' D. DISPOSER
1. RAIL	1. PILE	1. FILTRATION	X 1. LANDFILL
2. SHIP	2. SURFACE IMPOUNDMENT	2. INCINERATION	2. LANDFARM
3. BARGE	3. DRUMS	3. VOLUME REDUCTION	3. OPEN DUMP
4. TRUCK	4. TANK, ABOVE GROUND	4. RECYCLING/RECOVERY	4. SURFACE IMPOUNDMENT
5. PIPELINE	5. TANK, BELOW GROUND	5. CHEM./PHYS. TREATMENT	5. MIDNIGHT DUMPING
6. OTHER (specify):	6. OTHER (specify):	6. BIOLOGICAL TREATMENT	6. INCINERATION
		7. WASTE OIL REPROCESSING	7. UNDERGROUND INJECTION
		8. SOLVENT RECOVERY	8. OTHER (specify):
		9. OTHER (specify):	

E. SPECIFY DETAILS OF SITE ACTIVITIES AS NEEDED LEADED TANK BOTTOMS GENERATED BY THE CLEANING OF GASOLINE STORAGE TANKS WERE DISPOSED OF ON-SITE BY THE BURIAL METHOD IN ACCORDANCE WITH STANDARDIZED INDUSTRY PRACTICE. DURING THE LATTER PART OF 1962 OR EARLY 1963 TANK #1 WAS CLEANED & TWO WHEELBARROW LOADS OF LEADED TANK BOTTOMS WERE BURIED BETWEEN TANK #1 & 2

V. WASTE RELATED INFORMATION

A. WASTE TYPE

☒ 1. UNKNOWN ☒ 2. LIQUID ☐ 3. SOLID ☒ 4. SLUDGE ☐ 5. GAS

B. WASTE CHARACTERISTICS

☒ 1. UNKNOWN ☐ 2. CORROSIVE ☐ 3. IGNITABLE ☐ 4. RADIOACTIVE ☐ 5. HIGHLY VOLATILE
☒ 6. TOXIC ☐ 7. REACTIVE ☐ 8. INERT ☐ 9. FLAMMABLE

☐ 10. OTHER (specify):

C. WASTE CATEGORIES

1. Are records of wastes available? Specify items such as manifests, inventories, etc. below.

No

2. Estimate the amount (specify unit of measure) of waste by category; mark 'X' to indicate which wastes are present.

a. SLUDGE	b. OIL	c. SOLVENTS	d. CHEMICALS	e. SOLIDS	f. OTHER
AMOUNT	AMOUNT	AMOUNT	AMOUNT	AMOUNT	AMOUNT
UNIT OF MEASURE	UNIT OF MEASURE	UNIT OF MEASURE	UNIT OF MEASURE	UNIT OF MEASURE	UNIT OF MEASURE
X' (1) PAINT, PIGMENTS	X' (1) OILY WASTES	X' (1) HALOGENATED SOLVENTS	X' (1) ACIDS	X' (1) FLYASH	X' (1) LABORATORY PHARMACEUT.
X (2) METALS SLUDGES	(2) OTHER (specify):	(2) NON-HALOGENATED SOLVENTS	(2) PICKLING LIQUORS	(2) ASBESTOS	(2) HOSPITAL
(3) POTW		(3) OTHER (specify):	(3) CAUSTICS	(3) MILLING/ MINE TAILINGS	(3) RADIOACTIVE
(4) ALUMINUM SLUDGE			(4) PESTICIDES	(4) FERROUS SMLTS. WASTES	(4) MUNICIPAL
(5) OTHER (specify):			(5) DYES/INKS	(5) NON-FERROUS SMLTS. WASTES	(5) OTHER (specify):
LEADED SLUDGE			(6) CYANIDE	(6) OTHER (specify):	
			(7) PHENOLS		
			(8) HALOGENS		
			(9) PCB		
			(10) METALS		
			(11) OTHER (specify):		

Continued From Page 2

V. WASTE RELATED INFORMATION (continued)

3. LIST SUBSTANCES OF GREATEST CONCERN WHICH MAY BE ON THE SITE (place in descending order of hazard).

LEAD

4. ADDITIONAL COMMENTS OR NARRATIVE DESCRIPTION OF SITUATION KNOWN OR REPORTED TO EXIST AT THE SITE.

NONE

VI. HAZARD DESCRIPTION

	A. TYPE OF HAZARD	B. POTENTIAL HAZARD (mark 'X')	C. ALLEGED INCIDENT (mark 'X')	D. DATE OF INCIDENT (mo., day, yr.)	E. REMARKS
A	1. NO HAZARD				
B	2. HUMAN HEALTH				
C	3. NON-WORKER INJURY/EXPOSURE				
D	4. WORKER INJURY				
E	5. CONTAMINATION OF WATER SUPPLY				
F	6. CONTAMINATION OF FOOD CHAIN				
G	7. CONTAMINATION OF GROUND WATER	X			
H	8. CONTAMINATION OF SURFACE WATER				
I	9. DAMAGE TO FLORA/FAUNA				
J	10. FISH KILL				
K	11. CONTAMINATION OF AIR				
L	12. NOTICEABLE ODORS				
M	13. CONTAMINATION OF SOIL	X			
N	14. PROPERTY DAMAGE				
O	15. FIRE OR EXPLOSION				
P	16. SPILLS/LEAKING CONTAINERS/ RUNOFF/STANDING LIQUIDS				
Q	17. SEWER, STORM DRAIN PROBLEMS				
R	18. EROSION PROBLEMS				
S	19. INADEQUATE SECURITY				
T	20. INCOMPATIBLE WASTES				
U	21. MIDNIGHT DUMPING				
V	22. OTHER (specify):				

Continued From Front

VII. PERMIT INFORMATION

A. INDICATE ALL APPLICABLE PERMITS HELD BY THE SITE.

- ☐ 1. NPDES PERMIT ☐ 2. SPCC PLAN ☐ 3. STATE PERMIT (specify) _____
☐ 4. AIR PERMITS ☐ 5. LOCAL PERMIT ☐ 6. RCRA TRANSPORTER
☐ 7. RCRA STORER ☐ 8. RCRA TREATER ☐ 9. RCRA DISPOSER

☒ 10. OTHER (specify): NONE

B. IN COMPLIANCE?

- ☐ 1. YES ☐ 2. NO ☒ 3. UNKNOWN

4. WITH RESPECT TO (list regulation name & number): _____

VIII. PAST REGULATORY ACTIONS

- ☒ A. NONE ☐ B. YES (summarize below)

IX. INSPECTION ACTIVITY (past or on-going)

- ☒ A. NONE ☐ B. YES (complete items 1, 2, 3, & 4 below)

1. TYPE OF ACTIVITY	2. DATE OF PAST ACTION (mo., day, & yr.)	3. PERFORMED BY: (EPA/State)	4. DESCRIPTION

X. REMEDIAL ACTIVITY (past or on-going)

- ☒ A. NONE ☐ B. YES (complete items 1, 2, 3, & 4 below)

1. TYPE OF ACTIVITY	2. DATE OF PAST ACTION (mo., day, & yr.)	3. PERFORMED BY: (EPA/State)	4. DESCRIPTION

NOTE: Based on the information in Sections III through X, fill out the Preliminary Assessment (Section II) information on the first page of this form.



POTENTIAL HAZARDOUS WASTE SITE
IDENTIFICATION AND PRELIMINARY ASSESSMENT

REGION

SITE NUMBER (to be assigned by HQ)

NOTE: This form is completed for each potential hazardous waste site to help set priorities for site inspection. The information submitted on this form is based on available records and may be updated on subsequent forms as a result of additional inquiries and on-site inspections.

GENERAL INSTRUCTIONS: Complete Sections I and III through X as completely as possible before Section II (Preliminary Assessment). File this form in the Regional Hazardous Waste Log File and submit a copy to: U.S. Environmental Protection Agency; Site Tracking System; Hazardous Waste Enforcement Task Force (EN-335); 401 M St., S.W. Washington, DC 20460.

A. GAD079362661 DE KALB		ON	
C. CROWN CENTRAL PETROLEUM CORP		(or other identifier)	
2765 WOODWIN RD		E. ZIP CODE	F. COUNTY NAME
DORAVILLE GA 30340			
G. ONDERDUNK, PHIL B. MKTG.* 3015397400		2. TELEPHONE NUMBER	

H. ☐ 1. FEDERAL ☐ 2. STATE ☐ 3. COUNTY ☐ 4. MUNICIPAL ☐ 5. PRIVATE ☐ 6. UNKNOWN

I. SIC		K. DATE IDENTIFIED (mo., day, & yr.)	
"103-C NOTIFICATION" DATE: 810608			
J. H. JIM SETZER			
PHONE: 404-656-2833			
L. F.		TELEPHONE NUMBER	

II. PRELIMINARY ASSESSMENT (complete this section last)

A. APPARENT SERIOUSNESS OF PROBLEM	
<input type="checkbox"/> 1. HIGH <input type="checkbox"/> 2. MEDIUM <input type="checkbox"/> 3. LOW <input checked="" type="checkbox"/> 4. NONE <input type="checkbox"/> 5. UNKNOWN	
B. RECOMMENDATION	
<input checked="" type="checkbox"/> 1. NO ACTION NEEDED (no hazard)	
<input type="checkbox"/> 2. IMMEDIATE SITE INSPECTION NEEDED	
a. TENTATIVELY SCHEDULED FOR	
b. WILL BE PERFORMED BY	
<input type="checkbox"/> 3. SITE INSPECTION NEEDED	
a. TENTATIVELY SCHEDULED FOR	
b. WILL BE PERFORMED BY	
<input type="checkbox"/> 4. SITE INSPECTION NEEDED (low priority)	

C. PREPARER INFORMATION		7. TELEPHONE NUMBER		8. DATE (mo., day, & yr.)	
1. NAME				81 09 13	

III. SITE INFORMATION

A. SITE STATUS		3. OTHER (specify):	
<input type="checkbox"/> 1. ACTIVE (Those industrial or municipal sites which are being used for waste treatment, storage, or disposal on a continuing basis, even if infrequently.)		<input type="checkbox"/> 2. INACTIVE (Those sites which no longer receive wastes.)	
		(Those sites that include such incidents like "midnight dumping" where no regular or continuing use of the site for waste disposal has occurred.)	
B. IS GENERATOR ON SITE?			
<input type="checkbox"/> 1. NO <input type="checkbox"/> 2. YES (specify generator's four-digit SIC Code):			
C. AREA OF SITE (in acres)		D. IF APPARENT SERIOUSNESS OF SITE IS HIGH, SPECIFY COORDINATES	
		1. LATITUDE (deg., min., sec.)	
		2. LONGITUDE (deg., min., sec.)	
E. ARE THERE BUILDINGS ON THE SITE?			
<input type="checkbox"/> 1. NO <input type="checkbox"/> 2. YES (specify):			

Continued From Front

IV. CHARACTERIZATION OF SITE ACTIVITY

Indicate the major site activity(ies) and details relating to each activity by marking 'X' in the appropriate boxes.

<input checked="" type="checkbox"/> A. TRANSPORTER	<input checked="" type="checkbox"/> B. STORER	<input checked="" type="checkbox"/> C. TREATER	<input checked="" type="checkbox"/> D. DISPOSER
1. RAIL	1. PILE	1. FILTRATION	1. LANDFILL
2. SHIP	2. SURFACE IMPOUNDMENT	2. INCINERATION	2. LANDFARM
3. BARGE	3. DRUMS	3. VOLUME REDUCTION	3. OPEN DUMP
4. TRUCK	4. TANK, ABOVE GROUND	4. RECYCLING/RECOVERY	4. SURFACE IMPOUNDMENT
5. PIPELINE	5. TANK, BELOW GROUND	5. CHEM./PHYS. TREATMENT	5. MIDNIGHT DUMPING
6. OTHER (specify):	6. OTHER (specify):	6. BIOLOGICAL TREATMENT	6. INCINERATION
		7. WASTE OIL REPROCESSING	7. UNDERGROUND INJECTION
		8. SOLVENT RECOVERY	8. OTHER (specify):
		9. OTHER (specify):	

E. SPECIFY DETAILS OF SITE ACTIVITIES AS NEEDED

V. WASTE RELATED INFORMATION

A. WASTE TYPE

☐ 1 UNKNOWN ☐ 2 LIQUID ☐ 3 SOLID ☐ 4 SLUDGE ☐ 5 GAS

B. WASTE CHARACTERISTICS

☐ 1 UNKNOWN ☐ 2 CORROSIVE ☐ 3 IGNITABLE ☐ 4 RADIOACTIVE ☐ 5 HIGHLY VOLATILE
☐ 6 TOXIC ☐ 7 REACTIVE ☐ 8 INERT ☐ 9 FLAMMABLE
☐ 10. OTHER (specify):

C. WASTE CATEGORIES

1. Are records of wastes available? Specify items such as manifests, inventories, etc. below.

2. Estimate the amount (specify unit of measure) of waste by category; mark 'X' to indicate which wastes are present.

a. SLUDGE	b. OIL	c. SOLVENTS	d. CHEMICALS	e. SOLIDS	f. OTHER
AMOUNT	AMOUNT	AMOUNT	AMOUNT	AMOUNT	AMOUNT
UNIT OF MEASURE	UNIT OF MEASURE	UNIT OF MEASURE	UNIT OF MEASURE	UNIT OF MEASURE	UNIT OF MEASURE
<input checked="" type="checkbox"/> (1) PAINT, PIGMENTS	<input checked="" type="checkbox"/> (1) OILY WASTES	<input checked="" type="checkbox"/> (1) HALOGENATED SOLVENTS	<input checked="" type="checkbox"/> (1) ACIDS	<input checked="" type="checkbox"/> (1) LAYERS	<input checked="" type="checkbox"/> (1) LABORATORY PHARMACEUT.
<input type="checkbox"/> (2) METALS SLUDGES	<input type="checkbox"/> (2) OTHER (specify):	<input type="checkbox"/> (2) NON-HALOGENATED SOLVENTS	<input type="checkbox"/> (2) PICKLING LIQUORS	<input type="checkbox"/> (2) ASBESTOS	<input type="checkbox"/> (2) HOSPITAL
<input type="checkbox"/> (3) POTW		<input type="checkbox"/> (3) OTHER (specify):	<input type="checkbox"/> (3) CAUSTICS	<input type="checkbox"/> (3) SLUDGE/SLURRY TAILINGS	<input type="checkbox"/> (3) RADIOACTIVE
<input type="checkbox"/> (4) ALUMINUM SLUDGE			<input type="checkbox"/> (4) PESTICIDES	<input type="checkbox"/> (4) EXHAUST/PROCESS WASTES	<input type="checkbox"/> (4) MUNICIPAL
<input type="checkbox"/> (5) OTHER (specify):			<input type="checkbox"/> (5) DYES/ANAS	<input type="checkbox"/> (5) OTHER SOLIDS/SLURRIES	<input type="checkbox"/> (5) OTHER (specify):
			<input type="checkbox"/> (6) CYANIDE		
			<input type="checkbox"/> (7) PHENOLS		
			<input type="checkbox"/> (8) HALOGENS		
			<input type="checkbox"/> (9) PCB		
			<input type="checkbox"/> (10) METALS		
			<input type="checkbox"/> (11) OTHER (specify):		

CROWN CENTRAL PETROLEUM CORPORATION



PRODUCERS • REFINERS • MARKETERS OF PETROLEUM PRODUCTS AND PETROCHEMICALS

GENERAL OFFICES • ONE NORTH CHARLES • P.O. BOX 1168 • BALTIMORE, MARYLAND 21203

June 8, 1981

U.S. EPA Region 4
Sites Notification
345 Courtland Street, N.E.
Atlanta, Georgia 30365

Re: SECTION 103 (c)
SUPERFUND NOTIFICATION
FORM COMPLIANCE LETTER

Dear Sir:

Crown Central Petroleum Corporation, a refiner and marketer of petroleum products with principal offices in Baltimore, Maryland, hereby submits EPA Form No. 8900-1, Notification of Hazardous Waste Site. Crown owns and operates numerous terminals and service stations in the mid-Atlantic and southeastern United States. To the best of our "knowledge, belief, recollection, and review of reasonably available records," the information contained in our notification form is complete and correct. Crown interprets the statute and implementing regulations to require notification for past disposal activities involving leaded tank bottoms. Supplementary information concerning disposal practices is provided on Attachments A and B.

We have diligently attempted to comply with the superfund notification requirement, considering the short compliance period. As early as February, 1981, we contacted key personnel, conducted meetings, and discussed compliance strategies. Upon the issuance of the notification form and instructions by EPA, Crown immediately notified all company officers of the requirement and prescribed mandatory compliance actions. Compliance was achieved by searching all accessible company files and records in all departments, and by conducting interviews with long-term employees and employees previously or presently involved in hazardous waste activity. We feel that Crown's actions undoubtedly constitute a "good faith" effort to comply with the EPA requirements and the Section 103(c) requirements of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (Public Law 96-510).

Sincerely yours,

Edwin P. Mampe
Director,
Regulatory Affairs

EPM/SLK/agh

Attachments

EPA Notification of Hazardous Waste Site

United States
Environmental Protection
Agency
Washington DC 20460

This initial notification information is required by Section 103(c) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 and must be mailed by June 9, 1981.

Please type or print in ink. If you need additional space, use separate sheets of paper. Indicate the letter of the item which applies.

810608

GAS 000 001 031

A Person Required to Notify:

Enter the name and address of the person or organization required to notify.

Name Crown Central Petroleum Corporation
Street 1 North Charles Street
City Baltimore State Md. Zip Code 21201

B Site Location:

Enter the common name (if known) and actual location of the site.

Name of Site Crown Central Petroleum Corporation
Street 2765 Woodwin Road
City Doraville County State Ga. Zip Code 30340

C Person to Contact:

Enter the name, title (if applicable), and business telephone number of the person to contact regarding information submitted on this form.

Name (Last, First and Title) Onderdonk, Phil B. (Marketing Attorney)
Phone (301) 539-7400

D Dates of Waste Handling:

Enter the years that you estimate waste treatment, storage, or disposal began and ended at the site.

From (Year) 1962 To (Year) 1963

E Waste Type: Choose the option you prefer to complete

Option 1: Select general waste types and source categories. If you do not know the general waste types or sources, you are encouraged to describe the site in Item 1—Description of Site.

General Type of Waste:
Place an X in the appropriate boxes. The categories listed overlap. Check each applicable category.

- 1. ☐ Organics
- 2. ☐ Inorganics
- 3. ☐ Solvents
- 4. ☐ Pesticides
- 5. ☐ Heavy metals
- 6. ☐ Acids
- 7. ☐ Bases
- 8. ☐ PCBs
- 9. ☐ Mixed Municipal Waste
- 10. ☐ Unknown
- 11. ☐ Other (Specify)

Source of Waste:
Place an X in the appropriate boxes.

- 1. ☐ Mining
- 2. ☐ Construction
- 3. ☐ Textiles
- 4. ☐ Fertilizer
- 5. ☐ Paper/Printing
- 6. ☐ Leather Tanning
- 7. ☐ Iron/Steel Foundry
- 8. ☐ Chemical, General
- 9. ☐ Plating/Polishing
- 10. ☐ Military/Ammunition
- 11. ☐ Electrical Conductors
- 12. ☐ Transformers
- 13. ☐ Utility Companies
- 14. ☐ Sanitary/Refuse
- 15. ☐ Photofinish
- 16. ☐ Lab/Hospital
- 17. ☐ Unknown
- 18. ☐ Other (Specify)

Option 2: This option is available to persons familiar with the Resource Conservation and Recovery Act (RCRA) Section 3001 regulations (40 CFR Part 261).

Specific Type of Waste:
EPA has assigned a four-digit number to each hazardous waste listed in the regulations under Section 3001 of RCRA. Enter the appropriate four-digit number in the boxes provided. A copy of the list of hazardous wastes and codes can be obtained by contacting the EPA Region serving the State in which the site is located.

K052

RECEIVED
EPA/REGION IV
DIVISION

RECEIVED
EPA/REGION IV

000254

Notification of Hazardous Waste Site		Side Two	
F Waste Quantity	<p>Place an X in the appropriate boxes to indicate the facility types found at the site</p> <p>In the "total facility waste amount" space give the estimated combined quantity (volume) of hazardous wastes at the site using cubic feet or gallons.</p> <p>In the "total facility area" space, give the estimated area size which the facilities occupy using square feet or acres.</p>	<p>Facility Type</p> <p>1. <input type="checkbox"/> Piles</p> <p>2. <input type="checkbox"/> Land Treatment</p> <p>3. <input type="checkbox"/> Landfill</p> <p>4. <input type="checkbox"/> Tanks</p> <p>5. <input type="checkbox"/> Impoundment</p> <p>6. <input type="checkbox"/> Underground Injection</p> <p>7. <input type="checkbox"/> Drums, Above Ground</p> <p>8. <input type="checkbox"/> Drums, Below Ground</p> <p>9. <input checked="" type="checkbox"/> Other (Specify) <u>burial pit</u></p>	<p>Total Facility Waste Amount</p> <p>cubic feet <u>unknown</u></p> <p>gallons _____</p> <p>Total Facility Area</p> <p>square feet <u>unknown</u></p> <p>acres _____</p>
G Known, Suspected or Likely Releases to the Environment:	<p>Place an X in the appropriate boxes to indicate any known, suspected, or likely releases of wastes to the environment.</p> <p><input type="checkbox"/> Known <input type="checkbox"/> Suspected <input type="checkbox"/> Likely <input checked="" type="checkbox"/> None</p>		
<p>Note: Items H and I are optional. Completing these items will assist EPA and State and local governments in locating and assessing hazardous waste sites. Although completing the items is not required, you are encouraged to do so</p>			
H Sketch Map of Site Location: (Optional)	<p>Sketch a map showing streets, highways, routes or other prominent landmarks near the site. Place an X on the map to indicate the site location. Draw an arrow showing the direction north. You may substitute a publishing map showing the site location.</p>		
I Description of Site: (Optional)	<p>Describe the history and present conditions of the site. Give directions to the site and describe any nearby wells, springs, lakes, or housing. Include such information as how waste was disposed and where the waste came from. Provide any other information or comments which may help describe the site conditions.</p>		
	<p>Disposal occurred at a petroleum product terminal site. Leaded tank bottoms generated by the cleaning of gasoline storage tanks were disposed of on-site by the burial method in accordance with standard industry practice. See attachments A and B for additional information concerning disposal methods. The estimated quantity of waste disposed of at this site cannot be determined. During the latter part of 1962 or the early part of 1963, tank No. 1 was cleaned and two wheelbarrow loads of leaded tank bottoms were buried between tank Nos. 1 and 2. To the best of our knowledge, this site does not pose a threat to the surrounding environment.</p>		
J Signature and Title:	<p>The person or authorized representative (such as plant managers, superintendents, trustees or attorneys) of persons required to notify must sign the form and provide a mailing address (if different than address in item A). For other persons providing notification, the signature is optional. Check the boxes which best describe the relationship to the site of the person required to notify. If you are not required to notify check "Other"</p>		
	<p>Name <u>Edwin P. Mampe</u></p> <p>Director, Regulatory Affairs</p> <p>Street <u>1 North Charles Street</u></p> <p>City <u>Baltimore</u> State <u>Md.</u> Zip Code <u>21201</u></p> <p>Signature <u>Edwin P. Mampe</u> Date <u>June 8, 1981</u></p> <p><input checked="" type="checkbox"/> Owner, Present <input type="checkbox"/> Owner, Past <input type="checkbox"/> Transporter <input type="checkbox"/> Operator, Present <input type="checkbox"/> Operator, Past <input type="checkbox"/> Other</p>		

ATTACHMENT A

SUPPLEMENT TO EPA FORM NO. 8900-1

STANDARD INDUSTRY PRACTICES FOR
THE DISPOSAL OF LEADED TANK BOTTOMS

The petroleum industry has been aware of the dangers associated with the removal of leaded sludges from gasoline storage tanks for the past fifty years. Preventative measures have been followed to afford protection to the environment and to workers.

Prior to the enactment of health and environmental legislation such as the Resource Conservation and Recovery Act (RCRA), the American Petroleum Institute (API) issued guidelines and procedures (API Publications RP2015 and RP 2015A) to ensure that adequate safety, health, and environmental precautions were undertaken by the petroleum industry during tank cleaning and sludge disposal operations. These guidelines prescribed appropriate (i) personal protective equipment, (ii) tank entry and inspection standards, (iii) use of lead-in-air analyzers and sampling techniques, and (iv) methods for sludge disposal.

API recommended two methods for sludge disposal - weathering and burial. Sludges disposed of by the weathering technique involved the spreading of the sludge on a ground, grass, or concrete surface in a layer approximately three inches thick. The sludge was spread in a location accessible to air flow and sunlight. The area was then secured to prohibit entry. Laboratory tests indicated that when exposed to the elements the organic lead compounds contained in sludges decompose into inorganic lead compounds without creating air, soil, or water contamination problems. Within four weeks, the enclosed area usually contained less than 20 parts per million of organic lead. Soil tests were recommended to verify these levels and

the area was then declared free of any lead hazard. A study compiled by the Ethyl Corporation concludes that the weathering technique was a safe method of handling sludges and that sludges weathered for four weeks usually contain less than 1 part per million of organic lead. See Attachment B for additional analytical data concerning this study.

The second method for disposal involved the burying of sludges in a pit covered with one to two feet of fresh earth. The burial areas were clearly marked to prevent future unearthings, since lead compounds in buried sludges would decompose much more slowly than those sludges treated by weathering. Generally, the standard industry practice was to allow the sludge to weather in an open pit for a period of two to three weeks before covering to reduce organic lead content. These burial pits were generally located within the confines of the tank farm area away from worker activity.

Crown Central Petroleum Corporation has not engaged in any on-site leaded sludge disposal activity for at least five years. Also, there are no known instances where service station sludges were buried on-site. All Crown-operated marketing facilities are currently in compliance with RCRA and dispose of sludges at approved off-site waste treatment facilities.

ATTACHMENT B

METHODS OF DISPOSING OF SLUDGE FROM
LEADED GASOLINE STORAGE TANKS

H. K. BALL

ETHYL CORPORATION

RELEASE AFTERNOON PAPERS TUESDAY, MAY 14

METHODS OF DISPOSING OF SLUDGE FROM LEADED GASOLINE STORAGE TANKS†

H. K. BALL*

ABSTRACT

For many years sludge from leaded gasoline storage tanks has been successfully disposed of by burial. Recently, inquiries have been received from a number of oil companies asking for an alternate method of sludge disposal. Available space for sludge pits is being exhausted, and in some areas high water tables offer disposal problems.

Various methods of sludge disposal were studied, including roasting, chemical treatment, leaching, etc. These methods, although effective, all have drawbacks.

Since the early 1930's, the potential toxicity of sludge from leaded gasoline storage tanks has been recognized. Therefore, it has been necessary to dispose of sludge by a method which would avoid harmful effects both from skin contact or inhalation of its vapors. Burial met these requirements.

In recent years, however, an increasing number of inquiries have been received from oil companies asking for an alternate method of sludge disposal because available space for sludge pits is being exhausted and in some areas high water tables create disposal problems.

In looking for alternate methods of sludge disposal, the basic requirements could be defined as follows:

1. Sludge should be reduced in the least possible time to a nonhazardous condition.
2. The method should be economical and should apply to tanks in all areas—refinery, terminal, bulk storage, etc.
3. The method should require no particular skill or technical assistance to perform it safely.

Possible methods for disposing of sludge were considered as follows:

1. *Chemical Methods* (applied after removing sludge from tank)

- a. Aqueous potassium permanganate.
- b. Sodium hypochlorite.
- c. Chlorine in acetic acid.
- d. Iodine solution.

2. *Thermal Methods*

a. *Ignition*: Place a thin layer of sludge into a shallow but long and wide trench, cover with kerosine, and ignite with a torch. The heating must be for a sufficiently long period of time to vaporize all liquid from the sludge and heat the dried mass to approximately 150 C.

b. *Roasting*: Place contaminated sludge on a large steel plate and heat with a flame to 150 C to 200 C. Heating may be applied in any manner.

It was learned that the tetraethyllead would dissipate after spreading leaded sludge in a 3-in. layer. From tests that have been conducted to date, it appears that a weathering period of 30 days is adequate to reduce most sludges to a lead level of below 20 ppm, which is considered safe. Factors such as freezing weather could extend this period somewhat depending upon conditions.

Data are still being accumulated to further support this program.

3. *Physical Methods (Weathering Sludge)*: Spread sludge in a thin layer and allow exposure to the elements.

4. *Combination of Preceding Methods*: Weathering followed by ignition or roasting.

5. *Miscellaneous Methods*: A host of other chemical decontaminants such as sulfuryl chloride in kerosine, hydrochloric acid, hydrogen peroxide, etc. were rejected because of secondary problems associated with use of these decontaminants.

Decontamination of sludge prior to removal from the gasoline storage tank (chlorine in the water wash) was rejected because of corrosion problems.

Advantages and Disadvantages of Various Methods

In the course of our investigations, it was agreed that:

1. Decontaminating sludge with chemicals (chlorine in acetic acid, iodine in potassium iodide solution, bleach, and potassium permanganate) is only partially effective and quite expensive. The chemicals react with other components of gasoline tank sludge and lose some of their effectiveness. Thorough mixing is essential for proper contact. This method is not considered feasible because of the difficulty of producing intimate contact of chemicals with sludge, the possible hazards of handling the chemicals, their cost, manpower requirements, and special equipment that may be required.

2. The most effective methods for decontaminating gasoline storage tank sludge are "thermal methods." Heating sludge to 200 C for 20 min after all moisture is removed reduces the tetraethyllead (TEL) content down to 0.00002 percent by weight. Heating may be carried out in a number of ways. However, the "thermal method" is only applicable when special facilities are available. The method may well require the removal of the sludge to a remote location involving rehandling of the material. Except under special circumstances, the economics do not appear good.

* Ethyl Corp., New York, N. Y.
† Presented to a session on operating practices during the 28th Midyear Meeting of the American Petroleum Institute's Division of Refining, in the Benjamin Franklin Hotel, Philadelphia, Pa., May 14, 1963; presiding, W. T. Askew, Sun Oil Co., Philadelphia, Pa.

3. Spreading sludge in a thin layer on the ground and allowing it to "weather" has been proven an effective procedure for decontaminating sludge. Tests show that under Gulf Coast weather conditions, this method was superior to chemical treatment. This also proved true in mid-Continent area tests. In colder parts of the country weathering may be less effective as the sludge is in an inactive state because of low temperatures. However, as the weather moderates the weathering will continue.

Chemical Methods

The chemical methods were tested by removing portions (125 g each) from a large sludge sample and analyzing for TEL before and after treatment by methods shown in Table 1. The results from this test (Table 1) demonstrate that treating with halogens (which react instantly when in contact with TEL), potassium permanganate, and bleach considerably reduces the TEL content. *However, in no case did the decontaminants remove all TEL.*

A secondary problem presented itself in that all chemical decontaminants reacted with other components of sludge, presumably iron in its lower state of oxidation and organic petroleum compounds. This tends to use up the decontaminant.

Mixing sludge with chemical decontaminants appears to be necessary to improve contact with TEL. When potassium permanganate crystals were placed on the surface of sludge contained in a glass vessel, solution and diffusion of permanganate was extremely slow and not complete. Furthermore, the dilute permanganate solution was reduced by impurities in sludge more rapidly than it reacted with TEL.

Further tests to decontaminate sludge with potassium permanganate (1 lb permanganate to 99 lb sludge) proved unsuccessful. Even after stirring for 1 hr the TEL content was only reduced to 0.0022 percent by weight. Also, all potassium permanganate was reduced by this particular sludge sample. Based upon a cost of potassium permanganate at 26 cents per pound, this method appears to be quite expensive (approximately \$8.50 per cubic yard of sludge for permanganate only. The equipment and labor costs would be even higher).

TABLE 1—Decontamination by Chemicals of Gasoline Storage Tank Sludge

Decontaminant	Active Part of Decontaminant, 1 Part to 99 Parts Sludge (Weight)	Contact Time (Days)	Unreacted TEL Percent of Sludge (Weight)
None (control sample)	0.0120
Chlorine in acetic acid	Chlorine	3	0.0022
Iodine-potassium iodide	Iodine	3	0.0006
Potassium permanganate ..	Permanganate	3	0.0023*
Bleach	Bleach	3	0.0049

* Constant stirring of a similar mixture for 1 hr resulted in a value of 0.0022 percent.

The addition of 0 percent by weight TEL to a single sample of sludge originally containing approximately 0.01 percent by weight TEL was readily decontaminated with chlorine in acetic acid to 0.0025 percent by weight of TEL. Apparently, TEL added to sludge is easy to decontaminate whereas TEL originally present in sludge is more difficult to decontaminate.

Thermal Methods

Thermal methods of *roasting* and *ignition* were tested and found to be effective, especially the former. A 300-g sample of sludge and a 2-lb sample of sludge were placed into steel trays and heated for 1 hr and 20 min. The temperature of the sludge remained below 100 C for the first hour (because of water on the sludge). During the next 20 min the temperature increased to 150 C on the surface and 200 C on the bottom layer.

The TEL content dropped to 0.00001 and 0.00002 percent by weight, respectively. This treatment appeared to be very promising because TEL and all other organic lead compounds are completely destroyed by heating.

The *ignition* method was tested by placing a 1-in. layer of wet sludge* in a tray and covering it with a thin layer of kerosine. The kerosine was then ignited. A relatively large volume of kerosine (1 volume kerosine to 4 volumes sludge) was needed to volatilize the moisture and reduce the TEL content to 0.0002 percent by weight. Two additions of kerosine were required to remove the moisture, and a third addition was necessary to increase the temperature of the sludge to a maximum of 145 C.

Burning air-dried sludge* with a kerosine and oil mixture reduced the TEL content to 0.00003 percent by weight. The use of kerosine only is not very satisfactory when using a deep bed of sludge (2 in.). Kerosine liquid and vapor prevent a rapid rise in the temperature of the sludge. The sludge bed acts as a wick, and if the temperature of the combustible vapor is not great enough, thermal decomposition of TEL is very slow. The use of a fuel with a higher boiling point is more effective for increasing the temperature of the sludge. For this reason, heating sludge with a flame or "roasting" is preferable to heating with a volatile solvent. The TEL content of a flame-heated sludge* sample (overhead flame) dropped to 0.00001 percent by weight.

Sludge-Weathering Method

In 1955 the Ethyl Corporation started a series of field tests involving the cleaning of leaded gasoline storage tanks. We were interested in what might be the maximum exposure hazard of lead vapors to personnel in a tank having contained leaded gasoline, and we were also interested in the nature of the sludge being removed from a tank. As a part of our study, sludge samples were sent to our chemical research and development laboratory in Baton Rouge for analysis. Sludge in glass bottles, standing in the laboratory before being analyzed, was found to stratify in layers composed of solids, gasoline, and water. It was further found that by centrifuging these samples, the TEL in the sludge can be removed.

* 0.012 percent by weight TEL.

As a matter of passing interest, some of this material was put in the sunlight and it was found that TEL diffused into the atmosphere. Further checking by the laboratory group showed that the level of lead in sludge exposed to the elements (with or without the sun being present) rapidly declined.

For this "weathering" process to be a satisfactory method of decontaminating sludge two questions had to be answered.

1. How low did the level have to be reduced to make the sludge safe?
2. How long would it take?

To answer the first of these it was reasoned that the sludge is safe if it will not contaminate the air above it. Tests were then made to see what the LIA (lead-in-air) values were in the air above "weathering" sludge. The results showed that the values are low at all times, even with no apparent wind. This meant that the sludge, as far as air contamination is concerned, is essentially safe as soon as it is spread in the open. To be on the safe side, however, Ethyl Corporation has set a figure at 20 ppm of organic lead as the limit in the

sludge that can be considered safe in the open air after it has been "weathered."

In the early studies, sludge levels of various thicknesses were tried over a period of time. These are shown in Fig. 1 through Fig. 4. In addition to placing these on the ground, some were placed on steel plate with no apparent difference. These were small-scale tests.

Following this, full-scale tests were carried out at tank cleanings, two of which are shown in Tables 2 and 3.

The LIA values remained almost constant for the duration of both tests even though the lead content of the sludge was disappearing (Table 3).

From the LIA data, it was concluded that there is no danger of inhaling a harmful quantity of lead, provided there is nothing to restrict normal air movement.

The lead content of the sludge in about 3 weeks time dropped 90 percent or more in the 4-in-thick patches (Fig. 3) and 98 percent or more in the 2-in.-thick patches (Fig. 2).

Based on data such as this, it was decided that it would be entirely satisfactory to dispose of the con-

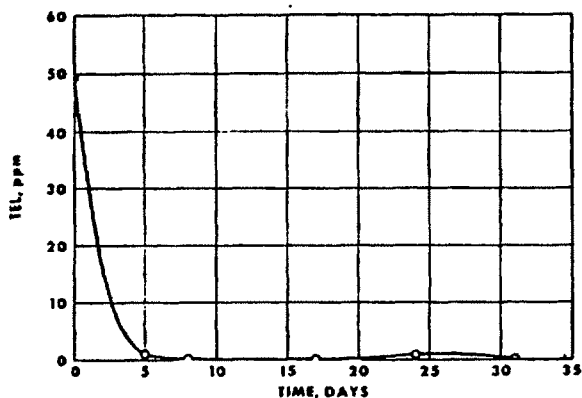


FIG. 1—One-Inch-Thick Sludge Weathered on Ground.

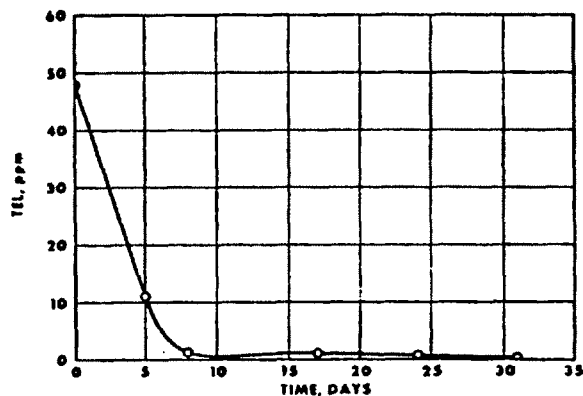


FIG. 3—Four-Inch-Thick Sludge Weathered on Ground.

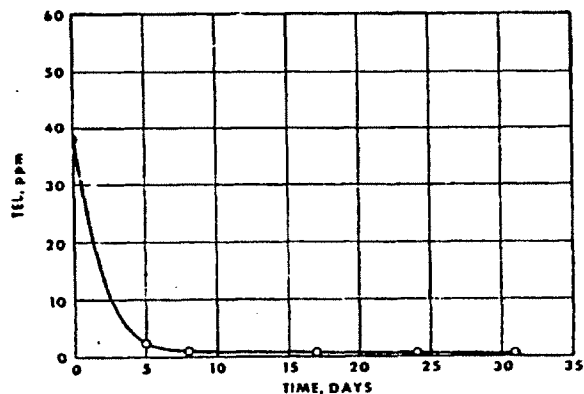


FIG. 2—Two-Inch-Thick Sludge Weathered on Ground.

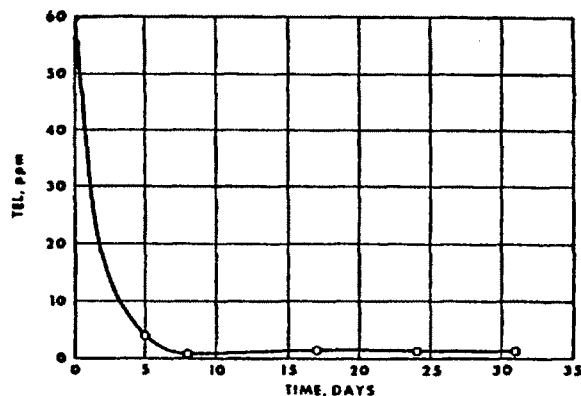


FIG. 4—Two-Inch-Thick Sludge Weathered on Steel Plate.

tamination in sludge by weathering for a period of 30 days.

As this program continues, considerably more data is being accumulated to substantiate our findings. To date all data obtained has proved our original conclusions to be correct.

The following procedure was developed for disposal of sludge so that a uniform method would be followed in arriving at a satisfactory completion of a sludge-weathering program:

1. Location of disposal area:

a. The site selected for sludge disposal should be in a remote part of the property and within property limits where it can be fenced off from the public. It should be located away from buildings. If the sludge is spread near the tank being cleaned, it should be outside the surrounding firewall, so that the possibility of gasoline vapors affecting the tank cleaning operations will be eliminated.

b. The disposal area should be located so that personnel working in, on, or around the tank will not get into the spread-out sludge.

c. It can be a bare ground, grass, or concrete surface.

d. It must be fairly smooth and well drained so that water will not stand on it.

e. The total area, whether in one or several patches, must be sufficiently large to permit spreading the sludge

TABLE 2—Typical Weathering Results

Weathering Time (Days)	TEL Content in Sludge in Parts Per Million	
	Two-Inch- Thick Patch	Four-Inch- Thick Patch
0	38.0	48.0
5	2.9	10.6
8	1.1	2.3
17	0.7	2.0
24	0.6	0.7
31	0.5	0.3

TABLE 3—Typical Lead-in-Air Readings

Weathering Time (Days)	Micrograms TEL per Cubic Foot of Air	
	Three Inches Above Sludge	Waist Level Above Sludge
1	1	1
2	1	1
5	1	1

in a layer not over 3 in. thick. The total area required will, of course, be determined by the amount of sludge in the tank.

f. It should be so located that air can circulate freely over the surface of the sludge. Exposure to the sun is desirable but not mandatory.

2. Remove sludge from the tank in the usual manner following the safety recommendations approved by the American Petroleum Institute.

3. The sludge can be moved from the tank to the spreading area in available plant equipment. Wheelbarrows, buckets, or other small containers may be used for moving it a short distance. Dump trucks, lugger buckets, etc. may be used for longer distances. The containers used should be metal. After use, they should be washed thoroughly with water.

4. The sludge can be spread with hoes, rakes, or shovels. It should be spread as uniformly as possible to a maximum thickness of 3 in. If the area permits it, a thinner spreading is desirable.

5. Personnel who handle and spread the sludge should be dressed in special clothing as recommended for tank cleaning. Masks will not usually be necessary unless there is no air movement and vapors can be detected by odor at face level.

6. After the spreading is completed the sludge patch or patches should be roped off and marked so that no one will walk through or stand in the sludge.

7. The spread sludge should be left for at least four weeks. After that it may be treated as any other non-toxic waste material. It is satisfactory to remove signs, fences, etc. and leave the sludge in the preselected area permanently. The four-week weathering period applies when the ambient temperature is above 32 F. Therefore, if temperatures under 32 F exist during the period of weathering, this period of subfreezing temperatures should not be included in the recommended four weeks of weathering.

8. Whenever the weathered sludge analyzes 0.002 percent by weight (20 ppm) organic lead or less, it may be considered safe and the sludge may then be treated as any other nonhazardous waste material.

To date we have examined over 100 weathered samples taken from tank cleanings and have definite results on 38. These weathered satisfactorily, the organic lead being reduced to less than 20 ppm. A number of samples had to be ruled out because we had no base line to start with, although we have reason to believe that these did weather satisfactorily.

This unquestionably is a radical departure from the early and original method of sludge burial. The new method was brought about by necessity; and, very fortunately, because of the curiosity of our people in our chemical research and development laboratories, we were able to bring to the field a method that, judging from figures received to date, is going to solve a lot of our sludge problems.

We are preparing a more detailed paper on some of the intricacies involved which, hopefully, should be published in several months.

ACKNOWLEDGMENT

The author wishes to acknowledge the assistance of Mr. Louis J. Snyder of the chemical research and development department of Ethyl Corporation who is responsible for directing the laboratory work which was done in connection with this study.

sludge disposal

One of two methods is commonly used for disposing of sludge from leaded-gasoline storage tanks. They are "burying" or "weathering". Both methods are recognized by API RP-2015. There are other effective methods, such as "thermal" methods, but they are not commonly used because special facilities are required.

BURYING—In this method a pit is dug either manually or by bulldozer. The sludge is dumped into the pit and then covered with 1 to 2 feet of fresh earth. This area should be adequately marked so that no one inadvertently uncovers the buried sludge. Experience indicates that buried organic lead compounds decompose very slowly to inorganic materials. If a ditch or trench is dug through the sludge pit, organic lead compounds may be uncovered.

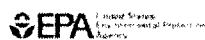
WEATHERING—This method is safe, effective, and economical. Laboratory tests show that organic lead compounds in sludge when exposed to the elements will decompose to inorganic lead compounds. Laboratory and field tests show that if the procedures, as outlined in this section are followed, there will be no special air, soil, or water contamination problem. The basis for this is: (1) The total quantity of organic lead in a sludge weathering bed is small. Concentrations rarely exceed the normal range of 0.1 to 0.4 pounds organic lead per ton of sludge. (2) Regardless of the concentrations or total quantity of lead in the sludge weathering bed, the amount of organic lead exposed to the atmosphere at the surface of the weathering bed is very small. Lead-in-air tests taken over or immediately downwind of the weathering bed indicate that lead-in-air concentrations do not exceed the threshold limit value for organic lead. This indicates the atmosphere in the area is essentially safe from an occupational health hazard standpoint as soon as the sludge is spread. (3) Organic lead compounds are dissolved in the gasoline hydrocarbon fractions of the sludge and do not migrate into water or soil. Thus, the physical properties of organic lead in sludge in the weathering beds are such that vaporization, absorption in water or soil do not constitute a health problem.



ETHYL CORPORATION
PETROLEUM CHEMICALS DIVISION

**"WEATHERING" PROCEDURE
FOR DISPOSAL OF SLUDGE
FROM LEADED GASOLINE
STORAGE TANKS**

1. Location of disposal area:
 - a. The site selected for sludge disposal should be in a remote part of the tank owners property and within property limits where it can be fenced off from the public. It should be located away from buildings. If the sludge is spread near the tank being cleaned, it should be outside the surrounding firewall, so that the possibility of gasoline vapors affecting the tank cleaning operations will be eliminated.
 - b. The disposal area should be located so that personnel working in, on, or around the tank will not get into the spreadout sludge.
 - c. It can be a bare ground, grass or concrete surface.
 - d. It must be fairly smooth and well drained so that water will not stand on it.
 - e. The total area, whether in one or several patches, must be sufficiently large to permit spreading the sludge in a layer not over 3" thick. The total area required will, of course, be determined by the amount of sludge in the tank.
 - f. It should be so located that air can circulate freely over the surface of the sludge. Exposure to the sun is desirable but not mandatory.
2. Remove sludge from the tank in the usual manner following the safety recommendations approved by API.
3. The sludge can be moved from the tank to the spreading area in available plant equipment. Wheelbarrows, buckets or other small containers may be used for moving it a short distance. Dump trucks, lugger buckets, etc., may be used for longer distances. The containers used should be metal. After use, they should be washed thoroughly with water.
4. The sludge can be spread with hoes, rakes or shovels. It should be spread as uniformly as possible to a *maximum thickness of three inches*. If the area permits it, a thinner spreading is desirable.
5. Personnel handling and spreading the sludge should be dressed in special clothing as recommended for tank cleaning. Normally, masks will not be necessary if there is air movement.
6. After the spreading is completed the sludge patch or patches should be roped off and marked so that no one will walk through or stand in the sludge.
7. While sludge will normally weather within four weeks when the sludge temperature is above 32 degrees F, lead-in-sludge tests should be made before declaring it a nontoxic waste material. The number of days during which sludge temperatures are 32 degrees F or lower should be excluded from the four-week weathering period. If after the four-week weathering period the organic lead content is 20 parts per million or less, 0.002 weight percent, the sludge may then be treated as any other nontoxic waste material. It is then satisfactory to remove signs and fences. The sludge should remain in the preselected area.



Envirofacts

FRS Facility Detail Report

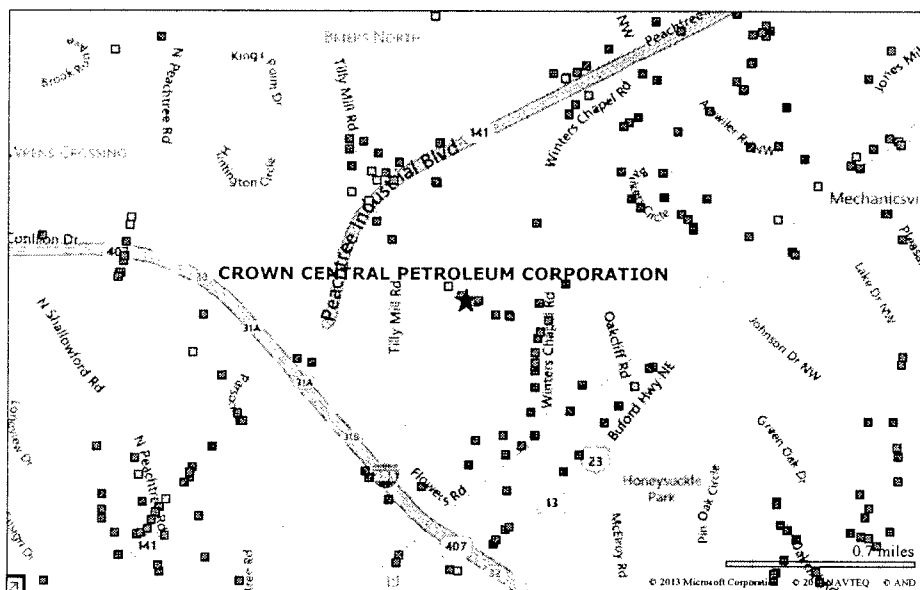


CROWN CENTRAL PETROLEUM CORPORATION

2765 WOODAWN DRIVE
DORAVILLE, GA 30360-3119
EPA Registry Id: 110001389417

Facility Registry Service Links

- Search
 - FRS Facility Query
 - FRS EZ Search
 - Organization Search
- FRS Physical Data Model
- FRS Geospatial Model
- Contact Us
- Facility Registry Service (FRS)
- Home

Report
an
Error

Legend

- ★ Selected Facility
- ◼ EPA Facility of Interest
- ◼ State/Tribe Facility of Interest

The facility locations displayed come from the FRS Spatial Coordinates tables. They are the best representative locations for the displayed facilities based on the accuracy of the collection method and quality assurance checks performed against each location. The North American Datum of 1983 is used to display all coordinates.

Environmental Interests

Information System	Information System ID	Environmental Interest Type	Data Source	Last Updated Date	Supplemental Environmental Interests:
RESOURCE CONSERVATION AND RECOVERY ACT INFORMATION SYSTEM	GAD079362661	UNSPECIFIED UNIVERSE (N)	RCRAINFO	09/02/2000	
AIR FACILITY SYSTEM	1308900140	AIR SYNTHETIC MINOR (N)	AIRS/AFS	03/04/2011	
GEORGIA - GEOGRAPHIC ENVIRONMENTAL INFORMATION MANAGEMENT SYSTEM	440549	STATE MASTER	GEIMS		UST-1 UNDERGROUND STORAGE TANK PROGRAM UST-2 UNDERGROUND STORAGE TANK PROGRAM UST-3 UNDERGROUND STORAGE TANK PROGRAM
NATIONAL EMISSIONS INVENTORY	NEIGA0890140	CRITERIA AND HAZARDOUS AIR POLLUTANT INVENTORY	NEI		

Additional EPA Reports: [MyEnvironment](#) [Enforcement and Compliance](#) [Site Demographics](#) [Watershed Report](#)
Standard Industrial Classification Codes (SIC) National Industry Classification System Codes (NAICS)

Data Source	SIC Code	Description	Primary	Data Source	NAICS Code	Description	Primary
AIRS/AFS	5171	PETROLEUM BULK STATIONS AND TERMINALS		RCRAINFO	42271		

Facility Codes and Flags

Facility Mailing Addresses

EPA Region: 04	Affiliation Type	Delivery Point	City Name	State	Postal Code	Information System
Duns Number:	REGULATORY CONTACT	P O BOX 47279	DORAVILLE	GA	30362	RCRAINFO
Congressional District Number: 06	FACILITY MAILING ADDRESS	P O BOX 47279	DORAVILLE	GA	30362	RCRAINFO
Legislative District Number: DM	OWNER	1 N CHARLES ST	BALTIMORE	MD	21201	GEIMS
HUC Code/Watershed: 03130001 / UPPER CHATTAHOOCHEE	FACILITY MAILING ADDRESS	1 N CHARLES ST	BALTIMORE	MD	21201	GEIMS
US Mexico Border Indicator:	OPERATOR	PO BOX 1168	BALTIMORE	MD	21203	GEIMS
Federal Facility: NO	OWNER	1 N CHARLES ST	BALTIMORE	MD	2120	GEIMS

Tribal Land: NO		FACILITY MAILING ADDRESS		P O BOX 47279	DORA/VILLE	GA	30362	AIRS/AFS
Alternative Names		OPERATOR		PO BOX 1168	BALTIMORE	MD	2120	GEIMS
				Contacts				
Alternative Name		Source of Data		Affiliation Type	Full Name	Office Phone	Information System	Mailing Address
CROWN CENTRAL PETROLEUM CORP - DORAVILLE		AIR VOLUNTARY SUBMISSION		REGULATORY CONTACT	OSCAR RAINEY	4044589116	RCRAINFO	View
CROWN CENTRAL PETROLEUM DORAVILL		GEIMS		OWNER		410--539-7400	GEIMS	View
CROWN CENTRAL PETROLEUM CORP		AIRS/AFS		OPERATOR		410-539-7400	GEIMS	View
Organizations				COMPLIANCE CONTACT	PAUL MICHAELSON	4044589116	AIRS/AFS	
Affiliation Type	Name	DUNS Number	Information System	Mailing Address				
OPERATOR	CROWN CENTRAL PETROLEUM		GEIMS	View				
OWNER/OPERATOR		079362661	AIRS/AFS					
OWNER	CROWN CENTRAL PETROLEUM		GEIMS	View				



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Detailed Facility Report

[Report Error](#)[Data Dictionary](#)

For Public Release - Unrestricted Dissemination Report Generated on 09/03/2013
US Environmental Protection Agency - Office of Enforcement and Compliance Assurance

Gray text in this report indicates information that is not required to be reported to EPA. These data, typically regarding non-major or smaller facilities, are often incomplete.

Facility Permits and Identifiers

[Data Dictionary](#)

Statute	System	Source ID	Facility Name	Street Address	City	State	Zip
	FRS	110001389417	CROWN CENTRAL PETROLEUM CORPORATION	2765 WOODWIN DRIVE	DORAVILLE	GA	30360
CAA	AFS	1308900140	CROWN CENTRAL PETROLEUM CORP	2765 WOODWIN DRIVE	DORAVILLE	GA	30340
RCRA	RCR	GAD079362661	CROWN CENTRAL PETROLEUM CORP	2765 WOODWIN RD	DORAVILLE	GA	30360

Facility Characteristics

[Data Dictionary](#)

Statute	Source ID	Universe	Status	Areas	Permit Expiration Date	Latitude/Longitude	Indian Country?	SIC Codes	NAICS Codes
	110001389417					LRT: 33.917473 , -84.275787	No		
CAA	1308900140	Synthetic Minor (Fed. Rep.)	Permanently Closed	SIP, NSPS			NA	5171 5171	
RCRA	GAD079362661		Inactive				No	5171	42271

For the RCRA program, activities that contribute to an overall facility status of Active are displayed in parentheses using the acronym HPACS, where H indicates handler activities, P - permitting, A - corrective action, C - convener, and S - state-specific. More information is available in the Data Dictionary.

Inspection and Enforcement Summary Data

[Data Dictionary](#)

Statute	Source ID	Insp. Last 05Yrs	Date of Last Inspection	Formal Enf Act Last 05 Yrs	Penalties Last 05 Yrs
CAA	1308900140	0	Never	0	\$00
RCRA	GAD079362661	0	05/19/1998	0	\$00

Compliance Monitoring History (05 years)

[Data Dictionary](#)

Statute	Source ID	System	Inspection Type	Lead Agency	Date	Finding
- No data records returned.						

Entries in *italics* are not considered inspections in official counts.

Compliance Summary Data

[Data Dictionary](#)

Information on the nature of alleged violations is available on the FAQ page.

Statute	Source ID	Current SNC/HPV?	Description	Current As Of	Qtrs in NC (of 12)
CAA	1308900140	NO		08/19/2013	
RCRA	GAD079362661	No		08/09/2013	0

Three Year Compliance Status by Quarter

[Data Dictionary](#)

Violations shown in a given quarter do not necessarily span the entire 3 months. Information on the nature of alleged violations is available on the FAQ page, and information on the duration of non-compliance is available at the end of this report.

AIR Compliance Status												
Statute-Source ID	QTR1 Oct-Dec10	QTR2 Jan-Mar11	QTR3 Apr-Jun11	QTR4 Jul-Sep11	QTR5 Oct-Dec11	QTR6 Jan-Mar12	QTR7 Apr-Jun12	QTR8 Jul-Sep12	QTR9 Oct-Dec12	QTR10 Jan-Mar13	QTR11 Apr-Jun13	QTR12 Jul-Sep13
CAA-1308900140												
HPV History												
Program/Pollutant in Current Violation												
SIP												
NSPS												

High Priority Violator (HPV) History section: "Unaddr" means the facility has not yet been addressed with a formal enforcement action. "Addr" means the facility has been addressed with a formal enforcement action, but its violations have not been resolved. Lead Agency designated can be US EPA, State, Both, or No Lead Determined. If HPV History is blank, then the facility was not a High Priority Violator. V=Violation; S=Compliance Schedule

RCRA Compliance Status												
Statute-Source ID	QTR1 Oct-Dec10	QTR2 Jan-Mar11	QTR3 Apr-Jun11	QTR4 Jul-Sep11	QTR5 Oct-Dec11	QTR6 Jan-Mar12	QTR7 Apr-Jun12	QTR8 Jul-Sep12	QTR9 Oct-Dec12	QTR10 Jan-Mar13	QTR11 Apr-Jun13	QTR12 Jul-Sep13
RCRA-GAD079362661												
Facility Level Status												
Type of Violation	Agency											

The first date displayed for a RCRA Violation corresponds to the violation determination date, and the next to the resolution date (if the violation has been resolved).

Notices of Violation or Informal Enforcement - AFS, PCS, ICIS-NPDES, RCRAInfo (05 year history)

[Data Dictionary](#)

Statute	Source ID	Type of Action	Lead Agency	Date
- No data records returned.				

Formal Enforcement Actions - (05 year history)

AFS, PCS, RCRAInfo, NCDB

[Data Dictionary](#)

Statute	Source ID	Type of Action	Lead Agency	Date	Penalty	Penalty Description
- No data records returned.						

In some cases, formal enforcement actions may be entered both at the initiation and final stages of the action. These may appear more than once above. Entries in *italics* are not "formal" actions under the PCS definitions but are either the initiation of an action or penalties assessed as a result of a previous action. This section includes US EPA and State formal enforcement actions under CAA, CWA and RCRA

ICIS

Data Dictionary

Primary Law/Section	Case Number	Case Type	Lead Agency	Case Name	Issued/Filed Date	Settlement Date	Federal Penalty	State/Local Penalty	SEP Cost	Comp Action Cost
- No data records returned.										

Federal enforcement actions and penalties shown in this section are from the Integrated Compliance Information System (ICIS-FE&C). These actions may duplicate records in the Formal Enforcement Actions section

TRI History of Reported Chemicals Released in Pounds per Year at Site:

Data Dictionary

Year /	Total Air Emissions	Surface Water Discharges	Underground Injections	Releases to Land	Total On-site Releases	Total Off-site Transfers	Total Releases and Transfers
- No data records returned.							

TRI Total Releases and Transfers by Chemical and Year

- No data records returned.

Demographic Profile of Surrounding Area (3 Miles)

Data Dictionary

Open more detailed information in a new window (links leave OTIS): [1 Mi](#) [3 Mi](#) or [5 Mi](#)

This section provides demographic information regarding the community surrounding the facility. OTIS compliance data alone are not sufficient to determine whether violations at a particular facility had negative impacts on public health or the environment. Statistics are based upon the 2000 US Census data, and are accurate to the extent that the facility latitude and longitude listed below are correct. The latitude and longitude are obtained from the EPA Locational Reference Table(LRT) when available.

Radius of Area:	3 Miles	Land Area:	99.36%	Households in area:	32,266
Center Latitude:	33.917371	Water Area:	0.64%	Housing units in area:	33,615
Center Longitude:	-84.275864	Population Density:	2949.15/sq. mi.	Households On Public Assistance:	484
Total Persons:	82,812	Percent Minority:	55.13%	Persons Below Poverty Level:	9,597

Race Breakdown	Persons (%)	Age Breakdown:	Persons (%)
White:	46,762 (56.47%)	Child 5 years and less:	8,770 (8.18%)
African-american:	14,940 (18.04%)	Minors 17 years and younger:	17,186 (20.75%)
Hispanic-Origin:	20,788 (25.10%)	Adults 18 years and older:	65,622 (79.24%)
Asian/Pacific Islander:	8,088 (9.77%)	Seniors 65 years and older:	6,598 (7.97%)
American Indian:	541 (0.65%)		
Other/Multiracial:	9,339 (11.28%)		

Education Level (Persons 25 & older)	Persons (%)	Income Breakdown:	Households (%)
Less than 9th grade:	4,609 (8.98%)	Less than \$15,000:	3,055 (9.47%)
9th-12th grades:	5,080 (9.69%)	\$15,000-\$25,000:	3,221 (9.98%)
High School Diploma:	9,735 (18.96%)	\$25,000-\$50,000:	10,287 (31.68%)
Some College/2-yr:	10,714 (20.66%)	\$50,000-\$75,000:	6,601 (20.46%)
B.S./B.A. or more:	21,215 (41.31%)	Greater than \$75,000:	9,008 (27.92%)

Notice About Duration of Violations -- The duration of violations shown on this report is an estimate of the actual duration of the violations that might be alleged or later determined in a legal proceeding. For example, the start date of the violation as shown in the ECHO database is normally when the government first became aware of the violation, not the first date that the violation occurred, and the facility may have corrected the violation before the end date shown. In some situations, violations may have been corrected by the facility, but EPA or the State has not verified the correction of these violations. In other situations, EPA does not remove the violation flag until an enforcement action has been resolved.



This report was generated by the Integrated Data for Enforcement Analysis (IDEA) system, which updates its information from program databases monthly. The data were last updated: AFS: 08/19/2013 RCRAInfo: 08/09/2013 FRS: 08/11/2013.

Some regulated facilities have expressed an interest in explaining data shown in the Detailed Facility Reports in ECHO. Please check company web sites for such explanations.



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